

November 12, 1954.

Dr. Evelyn L. Oginsky,
Merck Institute for Therapeutic Research,
Rahway, New Jersey.

Dear Dr. Oginsky:

Thank you for sending the streptomycin-sensitive and resistant strains of *E. coli* (Murray), which arrived this morning. I have run them through a test for improvement of growth by aeration, and regret to have to report that I can find practically no difference between them. The cultures were tested in nutrient broth, and in Difco Penassay broth, in test tubes holding 10 ml. Aeration was supplied by bubbling air, very slightly enriched with CO₂. In both media, both the sensitive and resistant cultures showed a striking improvement in growth when aerated. By visual inspection, there is no difference. The luxuriant growth of both cultures on their agar slants as received already led me to anticipate this result. I have tested a number of pairs of S and R from various *E. coli* strains, and in my hands all behaved the same way.

It is difficult to assess whether a difference in technique, or in cultures, is responsible for the discrepancy in our findings. Am I asking too much to suggest that you verify the aeration effect on these strains, and inform me of any experimental features that might bring us closer together?

We have a number of *E. coli* cultures from Gratia's laboratory, including particularly one marked γ or CG-6 (sensitive to colicin), and one "V", or CA-7 (producing a colicin). If you have any use for these in retrieving your original results, I will be happy to send them. The designation "Gratia strain" was not enough for me to decide what you were using.

Is your colleague on this work, Patricia H. Smith, the same Pat Smith who worked with Burkholder at Yale a few years ago? If so, please convey my best wishes to her.

Yours sincerely,

Joshua Lederberg
Associate Professor of Genetics